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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/430,767	10/29/1999	DAVID E. HECKERMAN	1018.037US1	7721

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EXAMINER	
STARKS, WILBERT L	
ART UNIT	**PAPER NUMBER**
2129	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/17/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	09/430,767	HECKERMAN, DAVID E.	
	Examiner	Art Unit	
	Wilbert L. Starks, Jr.	2129	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 January 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-36,38 and 41-75* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4-36,38 and 41-75* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 U.S.C. §101

1. 35 U.S.C. §101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

the invention as disclosed in claims 1-36, 38, and 41-76 is directed to non-statutory subject matter.

2. None of them is limited to practical applications. Examiner finds that *In re Warmerdam*, 33 F.3d 1354, 31 USPQ2d 1754 (Fed. Cir. 1994) controls the 35 U.S.C. §101 issues on that point for reasons made clear by the Federal Circuit in *AT&T Corp. v. Excel Communications, Inc.*, 50 USPQ2d 1447 (Fed. Cir. 1999). Specifically, the Federal Circuit held that the act of:

> ...[T]aking several abstract ideas and manipulating them together adds nothing to the basic equation. *AT&T v. Excel* at 1453 quoting *In re Warmerdam*, 33 F.3d 1354, 1360 (Fed. Cir. 1994).

Examiner finds that Applicant's "ads" references are just such abstract ideas.

3. Examiner bases his position upon guidance provided by the Federal Circuit in *In re Warmerdam*, as interpreted by *AT&T v. Excel*. This set of precedents is within the

same line of cases as the *Alappat-State Street Bank* decisions and is in complete agreement with those decisions. *Warmerdam* is consistent with *State Street*'s holding that:

> Today we hold that *the transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price*, constitutes a practical application of a mathematical algorithm, formula, or calculation because it produces 'a useful, concrete and tangible result" – *a final share price momentarily fixed for recording purposes and even accepted and relied upon by regulatory authorities and in subsequent trades.* (emphasis added) *State Street Bank* at 1601..

4. True enough, that case later eliminated the "business method exception" in order to show that business methods were not per se nonstatutory, but the court clearly *did not* go so far as to make business methods *per se statutory*. A plain reading of the excerpt above shows that the Court was *very specific* in its definition of the new *practical application*. It would have been much easier for the court to say that "business methods were per se statutory" than it was to define the practical application in the case as "...the transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price..."

5. The court was being very specific.

6. Additionally, the court was also careful to specify that the "useful, concrete and tangible result" it found was "a final share price momentarily fixed for recording purposes and even accepted and relied upon by regulatory authorities and in subsequent trades." (i.e. the trading activity is the further practical use of the real world

monetary data beyond the transformation in the computer – i.e., "post-processing activity".)

7. Applicant cites no such specific results to define a useful, concrete and tangible result. Neither does Applicant specify the associated practical application with the kind of specificity the Federal Circuit used.

8. Furthermore, in the case *In re Warmerdam*, the Federal Circuit held that:

> ...[T]he dispositive issue for assessing compliance with Section 101 in this case is whether the claim is for a process that goes beyond simply manipulating 'abstract ideas' or 'natural phenomena' ... As the Supreme Court has made clear, '[a]n idea of itself is not patentable, ... *taking several abstract ideas and manipulating them together adds nothing to the basic equation*. In re Warmerdam 31 USPQ2d at 1759 (emphasis added).

9. Since the Federal Circuit held in *Warmerdam* that this is the "dispositive issue" when it judged the usefulness, concreteness, and tangibility of the claim limitations in that case, Examiner in the present case views this holding as the dispositive issue for determining whether a claim is "useful, concrete, and tangible" in similar cases. Accordingly, the Examiner finds that Applicant manipulated a set of abstract "items" to solve purely algorithmic problems in the abstract (i.e., what *kind* of "ad" is used? Philosophical ideas? Even vague expressions, about which even reasonable persons could differ as to their meaning? Combinations thereof?)

10. Since *Warmerdam* is within the *Alappat-State Street Bank* line of cases, it takes the same view of "useful, concrete, and tangible" the Federal Circuit applied in *State Street Bank*. Therefore, under *State Street Bank*, this could not be a "useful, concrete and tangible result". There is only manipulation of abstract ideas.

11. The Federal Circuit validated the use of *Warmerdam* in its more recent *AT&T Corp. v. Excel Communications, Inc.* decision. The Court reminded us that:

> Finally, **the decision in In re Warmerdam**, 33 F.3d 1354, 31 USPQ2d 1754 (Fed. Cir. 1994) **is not to the contrary**. *** The court found that the claimed process did nothing more than manipulate basic mathematical constructs and concluded that **'taking several abstract ideas and manipulating them together adds nothing to the basic equation'**; hence, the court held that the claims were properly rejected under §101 ... Whether one agrees with the court's conclusion on the facts, the **holding** of the case is a straightforward application of the basic principle that mere laws of nature, natural phenomena, and abstract ideas are not within the categories of inventions or discoveries that may be patented under §101. (emphasis added) AT&T Corp. v. Excel Communications, Inc., 50 USPQ2d 1447, 1453 (Fed. Cir. 1999).

12. Remember that in *In re Warmerdam*, the Court said that this was the dispositive issue to be considered. In the *AT&T* decision cited above, the Court reaffirms that this is the issue for assessing the "useful, concrete, and tangible" nature of a set of claims under 101 doctrine. Accordingly, Examiner views the *Warmerdam* holding as the dispositive issue in this analogous case.

13. The fact that the invention is merely the manipulation of *abstract ideas* is clear. The data referred to by Applicant's word "ads" is simply an abstract construct that does not provide limitations in the claims to the transformation of real world data (such as monetary data or heart rhythm data) by some disclosed process. Consequently, the necessary conclusion under *AT&T, State Street* and *Warmerdam,* is straightforward and

clear. The claims take several abstract ideas (i.e., "ads" in the abstract) and manipulate them together adding nothing to the basic equation. Claims 1-36, 38, and 41-76 are, thereby, rejected under 35 U.S.C. §101.

Claim Rejections - 35 U.S.C. §112

The following is a quotation of the first paragraph of 35 U.S.C. §112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-36, 38, and 41-76 are rejected under 35 U.S.C. §112, first paragraph because current case law (and accordingly, the MPEP) require such a rejection if a §101 rejection is given because when Applicant has not in fact disclosed the practical application for the invention, as a matter of law there is no way Applicant could have disclosed *how* to practice the *undisclosed* practical application. This is how the MPEP puts it:

> ("The how to use prong of section 112 **incorporates as a matter of law** the requirement of 35 U.S.C. §101 that the specification disclose as a matter of fact a practical utility for the invention.... If the application fails as a matter of fact to satisfy 35 U.S.C. §101, then the application **also fails as a matter of law** to enable one of ordinary skill in the art to use the invention under 35 U.S.C. §112."); In re Kirk, 376 F.2d 936, 942, 153 USPQ 48, 53 (CCPA 1967) ("Necessarily, compliance with §112 requires a description of how to use presently useful inventions, **otherwise an applicant would anomalously be required to teach how to use a useless invention**.") See, MPEP 2107.01(IV), quoting In re Kirk (emphasis added).

Therefore, claims 1-36, 38, and 41-76 are rejected on this basis.

Claim Rejections - 35 U.S.C. §102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2 are rejected under 35 U.S.C. §102(e) as being anticipated by Ballard (U.S. Patent Number 6,182,050 B1; dated 30 JAN 2001; class 705; subclass 014.)

Specifically:

Claim 1

Claim 1's "allocating each of a plurality of ads to at least one of a plurality of clusters, based on a predetermined criterion accounting for at least a quota for each ad and a constraint for each cluster;" is anticipated by Ballard, col. 9, lines 39-45, where it recites:

> For advertisement distribution based on demographic data, the message content manager sends a request to the ASP computer to **send** an advertisement which **conforms** to a included set of demographic parameters. Such information is sent to the ASP computer 52. The ASP computer 52 then selects **one or more advertisements** that **conform** to the demographic data and sends the advertisements to the end user via modem, fax and messenger service (e.g., postal service). In another embodiment both affinity data and demographic data are sent.

Further, claim 1's "... accounting for at least a quota..." is anticipated by Ballard, col. 10, lines 29-30, where it recites:

> For each advertisement displayed on the end user computer according to the methods of this invention, the ad display manager program stores an accounting entry into a log of ad display accounting data 67. The entry includes an identification code for the advertisement, a time and date stamp and a time duration during which the advertisement was shown. In some embodiments, the entry also includes a destination web page of where the end user hyper-linked to after viewing the advertisement. The ad display accounting data 67 is sent to the ASP computer 52 periodically or aperiodically. Such accounting data 67 enables the advertising service provider to provide information to the participating advertisers concerning their advertisements. Such information also may be used for determining the value of the advertisement bandwidth provided by the ASP 52 and for determining how much to charge participating advertisers.

Claim 1's "selecting an ad for a current cluster from ads allocated to the current cluster; and," is anticipated by Ballard, col. 10, lines 6-7, where it recites:

> Once the ASP computer 52 makes the selections, the advertisements or identifications (e.g., web page address) of the selected advertisements are sent to the end user computer along with the playback criteria. The end user computer 14 stores the advertisements or identifications and the playback criteria. A playback manager program determines when to display an advertisement on the end user computer. For example, ads may be displayed while the end user is off-line and the computer is idle, or while the computer is loading a program.

Claim 1's "effecting the ad." is anticipated by Ballard, col. 10, lines 8, where it recites:

> Once the ASP computer 52 makes the selections, the advertisements or identifications (e.g., web page address) of the selected advertisements are sent to the end user computer along with the playback criteria. The end user computer 14 stores the advertisements or identifications and the playback criteria. A playback manager program determines when to display an advertisement on the end user computer. For example, ads may be displayed while the end user is off-line and the computer is idle, or while the computer is loading a program.

Claim 2

Claim 2's "... effecting the item comprises displaying the ad." is anticipated by Ballard, col. 10, lines 8, where it recites:

> Once the ASP computer 52 makes the selections, the advertisements or identifications (e.g., web page address) of the selected advertisements are sent to the end user computer along with the playback criteria. The end user computer 14 stores the advertisements or identifications and the playback criteria. A playback manager program determines when to display an advertisement on the end user computer. For example, ads may be displayed while the end user is off-line and the computer is idle, or while the computer is loading a program.

Response to Arguments

Applicant's arguments filed 01/30/2007 have been fully considered but they are not persuasive. Specifically, Applicant argues:

Argument 1

> Claims 1-36, 38, and 41-76 stand rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter. It is respectfully submitted that this rejection is improper for at least the following reasons. The subject claims are directed to statutory subject matter.
>
> > Because the claimed process applies the Boolean principle [abstract idea] to produce a useful, concrete, tangible result ... on its face the claimed process comfortably falls within the scope of § 101. AT&T Corp. v. Excel Communications, Inc., 172 F.3d 1352, 1358. (Fed. Cir. 1999) (Emphasis added); See State Street Bank & Trust Co. v. Signature Fin. Group, Inc., 149 F.3d 1368, 1373, 47 USPQ2d 1596, 1601 (Fed.Cir.1998). The inquiry into patentability **requires** an examination of the contested claims to see if the claimed subject matter, as a whole, is a disembodied mathematical concept representing nothing more than a "law of nature" or an **"abstract idea," or** if the mathematical concept has been reduced to some practical application rendering it "useful." AT&T at 1357 citing In re Alappat, 33 F.3d 1526, 31 1544, 31 U.S.P.Q.2D (BNA) 1545, 1557 (Fed. Cir. 1994) (Emphasis added) (holding that more than an abstract idea was claimed because the claimed invention as a whole was directed toward forming a specific machine that produced the useful, concrete, and tangible result of a smooth waveform display).

> The Examiner asserts that claims 1-36, 38, and 41-76 are directed to non-statutory subject matter and, specifically, that "items" are abstract ideas and therefore not patentable. The Examiner cites In re Warmerdam, 33 F.3d 1354, 31 U.S.P.Q.2D (BNA) 1754 (Fed. Cir. 1994) to support the foregoing assertion. However, **merely determining whether an abstract idea is claimed is not enough to deem the claimed invention not concrete or intangible**; the inquiry requires an examination to see if the claimed invention, as a whole, is applied in a practical application to produce a useful, concrete, and tangible result. (AT&T Corp., v. Excel Communications, Inc., 172 F.3d 1352; 1357, 1999 U.S. App. LEXIS 7221, 15-16; 50 U.S.P.Q.2D (BNA) 1447 citing In re Alappat, 33 F.3d 1526, 31 U.S.P.Q.2D (BNA) 1545 (Fed. Cir. 1994)).

Applicant's assertion that a finding that the claim is an abstract idea is insufficient to say that the claim violates 101 conflicts with the quote he cites. Applicant's argument is a misinterpretation of law.

Examiner reads the claims as a whole to carefully search for actual limitations to practical applications and finds none. It is Examiner's opinion that the claims are devoid of statutory material. Having been given ample opportunity to respond by amendment, Applicant has presented no other statutory limitations to circumscribe the metes and bounds of the claims sufficiently to change this assessment.

Accordingly, Applicant has failed to carry his burden of showing how the claims are in any way statutory. On this basis, Examiner finds Applicant's argument to be unpersuasive and the rejections STAND.

Argument 2

> The subject application relates generally to targeted item delivery with inventory management, such as targeted advertising with quotas and is applicable to any type of commerce-related product or service placement in which an inventory of items are managed. (See e.g., pg. 1, lns. 6-8; pg. 3, lns. 1-2; and pg. 11, lns. 7-9). Independent claims 1, 62, 69, 71 and 75 have been amended herein to more clearly define the claimed subject matter.

The argued features are not claimed.

Examiner reads the claims as a whole to carefully search for actual limitations to practical applications and finds none. It is Examiner's opinion that the claims are devoid of statutory material. Having been given ample opportunity to respond by amendment, Applicant has presented no other statutory limitations to circumscribe the metes and bounds of the claims sufficiently to change this assessment.

Accordingly, Applicant has failed to carry his burden of showing how the claims are in any way statutory. On this basis, Examiner finds Applicant's argument to be unpersuasive and the rejections STAND.

Argument 3

> In particular, independent claim 1 has been amended to recite a computer implemented method comprising allocating each of a plurality of ads to at least one of a plurality of clusters... selecting an ad from a current cluster... and effecting the ad.

Examiner is not of the opinion that a pure "advertisement" is not "useful, concrete and tangible" within State Street Bank and is not a "substance" as required by Diamond v. Diehr. Specifically, the following is the definition of an "advertisement" from Webster's:

Definition:

> **Advertisement** 1: the act or process of advertising 2: a public notice; *esp.* : one published in the press or broadcast over the air. Merriam Webster's Collegiate Dictionary, Tenth Edition, 1997, p.18.

A mere "notice" is not tangible. It is not a "substance" and it need not involve any commerce. It is mere data display. As such, it is abstract and pure manipulations of "ads" are likewise, abstract ideas. Accordingly, the claims violate 101.

Examiner reads the claims as a whole to carefully search for actual limitations to practical applications and finds none. It is Examiner's opinion that the claims are devoid of statutory material. Having been given ample opportunity to respond by amendment, Applicant has presented no other statutory limitations to circumscribe the metes and bounds of the claims sufficiently to change this assessment.

Accordingly, Applicant has failed to carry his burden of showing how the claims are in any way statutory. On this basis, Examiner finds Applicant's argument to be unpersuasive and the rejections STAND.

Argument 4

> Independent claim 62 has been amended to recite a computer-implemented method comprising applying each of at least one first ad to an ordered set of rules, each rule accounting for at least a quota for each of a plurality of second ads... and, effecting the second ad for each of the at least one first ad.

Examiner is not of the opinion that a pure "advertisement" is not "useful, concrete and tangible" within State Street Bank and is not a "substance" as required by Diamond v. Diehr. Specifically, the following is the definition of an "advertisement" from Webster's:

Definition:

> **Advertisement** 1: the act or process of advertising 2: a public notice; *esp.* : one published in the press or broadcast over the air. Merriam Webster's Collegiate Dictionary, Tenth Edition, 1997, p.18.

A mere "notice" is not tangible. It is not a "substance" and it need not involve any commerce. It is mere data display. As such, it is abstract and pure manipulations of "ads" are likewise, abstract ideas. Accordingly, the claims violate 101.

Examiner reads the claims as a whole to carefully search for actual limitations to practical applications and finds none. It is Examiner's opinion that the claims are devoid of statutory material. Having been given ample opportunity to respond by amendment, Applicant has presented no other statutory limitations to circumscribe the metes and bounds of the claims sufficiently to change this assessment.

Accordingly, Applicant has failed to carry his burden of showing how the claims are in any way statutory. On this basis, Examiner finds Applicant's argument to be unpersuasive and the rejections STAND.

Argument 5

> Independent claim 69 has been amended to recite a computer-implemented method comprising determining at least one significant correlation between a plurality of binary features of the training data and a plurality of activation of ads from training data, determining an ad ..., generating a rule based on the ad, ...

Examiner is not of the opinion that a pure "advertisement" is not "useful, concrete and tangible" within State Street Bank and is not a "substance" as required by Diamond v. Diehr. Specifically, the following is the definition of an "advertisement" from Webster's:

Definition:

> **Advertisement** 1: the act or process of advertising 2: a public notice; *esp.* : one published in the press or broadcast over the air. Merriam Webster's Collegiate Dictionary, Tenth Edition, 1997, p.18.

A mere "notice" is not tangible. It is not a "substance" and it need not involve any commerce. It is mere data display. As such, it is abstract and pure manipulations of "ads" are likewise, abstract ideas. Accordingly, the claims violate 101.

Examiner reads the claims as a whole to carefully search for actual limitations to practical applications and finds none. It is Examiner's opinion that the claims are devoid of statutory material. Having been given ample opportunity to respond by amendment, Applicant has presented no other statutory limitations to circumscribe the metes and bounds of the claims sufficiently to change this assessment.

Accordingly, Applicant has failed to carry his burden of showing how the claims are in any way statutory. On this basis, Examiner finds Applicant's argument to be unpersuasive and the rejections STAND.

Argument 6

> Similarly, independent claim 71 has been amended to recite a machine-readable medium having instructions stored thereon for execution by a processor to perform a method comprising applying each of at least one first ad to an ordered set of rules, ...; and, effecting the second ad for each of the at least one first ad.

Examiner is not of the opinion that a pure "advertisement" is not "useful, concrete and tangible" within State Street Bank and is not a "substance" as required by Diamond v. Diehr. Specifically, the following is the definition of an "advertisement" from Webster's:

Definition:

> **Advertisement** 1: the act or process of advertising 2: a public notice; *esp.* : one published in the press or broadcast over the air. Merriam Webster's Collegiate Dictionary, Tenth Edition, 1997, p.18.

A mere "notice" is not tangible. It is not a "substance" and it need not involve any commerce. It is mere data display. As such, it is abstract and pure manipulations of "ads" are likewise, abstract ideas. Accordingly, the claims violate 101.

Examiner reads the claims as a whole to carefully search for actual limitations to practical applications and finds none. It is Examiner's opinion that the claims are devoid of statutory material. Having been given ample opportunity to respond by amendment, Applicant has presented no other statutory limitations to circumscribe the metes and bounds of the claims sufficiently to change this assessment.

Accordingly, Applicant has failed to carry his burden of showing how the claims are in any way statutory. On this basis, Examiner finds Applicant's argument to be unpersuasive and the rejections STAND.

Argument 7

> Independent claim 75 has been amended herein to recite a machine-readable medium having instructions stored thereon for execution by a processor to perform a method comprising . .. determining an ad and at least one binary, feature providing a largest activation, each rule accounting for at least a quota for the ad ..., generating a rule based on the ad and the at least one binary feature providing the largest activation ....

Examiner is not of the opinion that a pure "advertisement" is not "useful, concrete and tangible" within State Street Bank and is not a "substance" as required by Diamond v. Diehr. Specifically, the following is the definition of an "advertisement" from Webster's:

Definition:

> **Advertisement** 1: the act or process of advertising 2: a public notice; *esp.* : one published in the press or broadcast over the air. Merriam Webster's Collegiate Dictionary, Tenth Edition, 1997, p.18.

A mere "notice" is not tangible. It is not a "substance" and it need not involve any commerce. It is mere data display. As such, it is abstract and pure manipulations of "ads" are likewise, abstract ideas. Accordingly, the claims violate 101.

Examiner reads the claims as a whole to carefully search for actual limitations to practical applications and finds none. It is Examiner's opinion that the claims are devoid of statutory material. Having been given ample opportunity to respond by amendment, Applicant has presented no other statutory limitations to circumscribe the metes and bounds of the claims sufficiently to change this assessment.

Accordingly, Applicant has failed to carry his burden of showing how the claims are in any way statutory. On this basis, Examiner finds Applicant's argument to be unpersuasive and the rejections STAND.

Argument 8

> In addition, independent claim 36 recites a computer-implemented method comprising defining a plurality of clusters, each cluster corresponding to a group of users ... and, allocating an ad having a particular type to at least one cluster ....

Examiner is not of the opinion that a pure "advertisement" is not "useful, concrete and tangible" within State Street Bank and is not a "substance" as required by Diamond v. Diehr. Specifically, the following is the definition of an "advertisement" from Webster's:

Definition:

> **Advertisement** 1: the act or process of advertising 2: a public notice; *esp.* : one published in the press or broadcast over the air. Merriam Webster's Collegiate Dictionary, Tenth Edition, 1997, p.18.

A mere "notice" is not tangible. It is not a "substance" and it need not involve any commerce. It is mere data display. As such, it is abstract and pure manipulations of "ads" are likewise, abstract ideas. Accordingly, the claims violate 101.

Examiner reads the claims as a whole to carefully search for actual limitations to practical applications and finds none. It is Examiner's opinion that the claims are devoid of statutory material. Having been given ample opportunity to respond by amendment, Applicant has presented no other statutory limitations to circumscribe the metes and bounds of the claims sufficiently to change this assessment.

Accordingly, Applicant has failed to carry his burden of showing how the claims are in any way statutory. On this basis, Examiner finds Applicant's argument to be unpersuasive and the rejections STAND.

Argument 9

> Independent claim 46 recites a computer-implemented method comprising determining an allocation for each of a plurality of ads to at least one of a plurality of clusters... and outputting the allocation of each ad to at least one of the plurality of clusters.

Examiner is not of the opinion that a pure "advertisement" is not "useful, concrete and tangible" within State Street Bank and is not a "substance" as required by Diamond v. Diehr. Specifically, the following is the definition of an "advertisement" from Webster's:

Definition:

> **Advertisement** 1: the act or process of advertising 2: a public notice; *esp.* : one published in the press or broadcast over the air. Merriam Webster's Collegiate Dictionary, Tenth Edition, 1997, p.18.

A mere "notice" is not tangible. It is not a "substance" and it need not involve any commerce. It is mere data display. As such, it is abstract and pure manipulations of "ads" are likewise, abstract ideas. Accordingly, the claims violate 101.

Examiner reads the claims as a whole to carefully search for actual limitations to practical applications and finds none. It is Examiner's opinion that the claims are devoid of statutory material. Having been given ample opportunity to respond by amendment, Applicant has presented no other statutory limitations to circumscribe the metes and bounds of the claims sufficiently to change this assessment.

Accordingly, Applicant has failed to carry his burden of showing how the claims are in any way statutory. On this basis, Examiner finds Applicant's argument to be unpersuasive and the rejections STAND.

Argument 10

> Independent claim 50 similarly recites a computerized system comprising a database storing a plurality of ads, each ad having a quota... an allocator to allocate each of the plurality of ads... and a communicator to select an ad ... and output the ad to a user.

Examiner is not of the opinion that a pure "advertisement" is not "useful, concrete and tangible" within State Street Bank and is not a "substance" as required by Diamond v. Diehr. Specifically, the following is the definition of an "advertisement" from Webster's:

Definition:

> **Advertisement** 1: the act or process of advertising 2: a public notice; *esp.* : one published in the press or broadcast over the air. Merriam Webster's Collegiate Dictionary, Tenth Edition, 1997, p.18.

A mere "notice" is not tangible. It is not a "substance" and it need not involve any commerce. It is mere data display. As such, it is abstract and pure manipulations of "ads" are likewise, abstract ideas. Accordingly, the claims violate 101.

Examiner reads the claims as a whole to carefully search for actual limitations to practical applications and finds none. It is Examiner's opinion that the claims are devoid of statutory material. Having been given ample opportunity to respond by amendment, Applicant has presented no other statutory limitations to circumscribe the metes and bounds of the claims sufficiently to change this assessment.

Accordingly, Applicant has failed to carry his burden of showing how the claims are in any way statutory. On this basis, Examiner finds Applicant's argument to be unpersuasive and the rejections STAND.

Argument 11

> Independent claim 53 recites a machine-readable medium having instructions stored thereon for execution by a processor to perform a method comprising allocating each of a plurality of ads to at least one of a plurality of clusters... selecting an ad for a current cluster from ads allocated to the current cluster; and, displaying the ad

Examiner is not of the opinion that a pure "advertisement" is not "useful, concrete and tangible" within State Street Bank and is not a "substance" as required by Diamond v. Diehr. Specifically, the following is the definition of an "advertisement" from Webster's:

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Accordingly, Applicant has failed to carry his burden of showing how the claims are in any way statutory. On this basis, Examiner finds Applicant's argument to be unpersuasive and the rejections STAND.

Argument 12

> Likewise, independent claim 59 recites a machine-readable medium having instructions stored thereon for execution by a processor to perform a method comprising determining an allocation for each of a plurality of ads to at least one of a plurality of clusters ...and outputting the allocation of each ad to at least one of the plurality of clusters.

Examiner is not of the opinion that a pure "advertisement" is not "useful, concrete and tangible" within State Street Bank and is not a "substance" as required by Diamond v. Diehr. Specifically, the following is the definition of an "advertisement" from Webster's:

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Accordingly, Applicant has failed to carry his burden of showing how the claims are in any way statutory. On this basis, Examiner finds Applicant's argument to be unpersuasive and the rejections STAND.

Argument 13

> The ads, recited in the independent claims, are advertisements, which are well known and used extensively to increase sales by drawing attention to a product, service, etc., and are clearly not abstract ideas. The claims recite subject matter that is more than the mere manipulation of abstract ideas and **provide limitations to the transformation of real world data, in the form of ads, which can be effected, displayed, output, and so forth**. In addition, **the specification** provides various examples of practical applications. For example, the specification discloses allocation of an item (ads, products, services) such that the item is selected and effected. Allocation refers to filling each slot of a cluster to maximize the number of click-throughs of an ad on a web site. (See e.g., pg. 14, lns. 1417). Effected refers to the item being displayed or output to a user, and thus perceived by the user, and can include the displaying of an ad or the displaying of a button on a web site for immediate purchase of an item by a user. (See e.g. pg. 11, ln. 23 to pg. 12, ln. 3). Thus, a useful, concrete, and tangible result of the subject application can be targeted advertising.

Examiner is not of the opinion that a pure "advertisement" is not "useful, concrete and tangible" within State Street Bank and is not a "substance" as required by Diamond v. Diehr. Specifically, the following is the definition of an "advertisement" from Webster's:

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Examiner reads the claims as a whole to carefully search for actual limitations to practical applications and finds none. It is Examiner's opinion that the claims are devoid of statutory material. Having been given ample opportunity to respond by amendment, Applicant has presented no other statutory limitations to circumscribe the metes and bounds of the claims sufficiently to change this assessment.

Further, the limitations in the Specification cannot be "read into" the claims unless Applicant has invoked 112, sixth paragraph. Applicant has not invoked it, therefore, those are unclaimed limitations and are, thereby, moot.

Accordingly, Applicant has failed to carry his burden of showing how the claims are in any way statutory. On this basis, Examiner finds Applicant's argument to be unpersuasive and the rejections STAND.

Argument 14

I. Rejection of Claims 1-36, 38, and 41-76 Under 35 U.S.C. §112

Claims 1-36, 38, and 41-76 stand rejected under 35 U.S.C. §112, first paragraph because current case law and the MPEP require such a rejection for claims that stand rejected under 35 U.S.C. §101. It is respectfully submitted that this rejection is improper for at least the following reasons. The rejection of the subject claims under 35 U.S.C. §101 should be withdrawn pursuant to the aforementioned comments rendering the subject rejection moot. Accordingly, this rejection should be withdrawn and the subject claims allowed.

Applicant has not overcome the bases of the 101 and the 112 rejections.

Applicant has failed to carry his burden. On this basis, Examiner finds Applicant's argument to be unpersuasive and the rejections STAND.

Argument 15

II. Rejection of Claims 1 and 2 Under 35 U.S.C. §102(e)

Claims 1 and 2 stand rejected under 35 U.S.C. §102(e) as being anticipated by Ballard (U.S. 6,182,050). This rejection should be withdrawn for at least the following reason. Ballard does not teach or suggest each and every limitation recited in the subject claims.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ...claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 9 USPQ 2d 1913, 1920 (Fed. Cir. 1989).

Independent claim 1, from which claim 2 dependents, recites a computer implemented method comprising allocating each of a plurality of ads to at least one of a plurality of clusters, based on a predetermined criterion accounting for at least a quota for each ad and a constraint for each cluster, selecting an ad for a current cluster from ads allocated to the current cluster and effecting the ad. Predetermined criterion is used, for example, to maximize the number of click throughs for all of the ads, given quotas and constraints. (See e.g., pg. 15, Ins. 8-11). Quotas can be defined as the number of times each ad should be displayed overall within all the clusters and for each item can be ad-showing quotas or item-purchase quotas, for example. (See e.g., pg. 11, Ins. 21-23; pg. 13, Ins. 21-23). The constraint for each cluster can specify that a particular ad should not be shown within a certain cluster or can include the number of impressions by any user associated with each cluster. (See e.g., pg. 3, Ins 20-21 and pg. 14, Ins 1-5). The ads in a current cluster can be allocated so that the expected number of clicks on an entire site is maximized. (See e.g., pg. 13, Ins 20-21).

Ballard relates to the distribution of advertisements to consumers. (See e.g., col. 1, Ins 7-9). Advertisements are provided that conform to a specific parameter (e.g., demographic parameter) and an advertisement that conforms to the specific parameter is sent to the end user. (See e.g., col. 9, Ins, 39-48). However, Ballard does not teach or even suggest allocating a plurality of ads to account for at least a quota for each ad and a constraint for each cluster, as claimed.

Claim 1's "allocating each of a plurality of ads to at least one of a plurality of clusters, based on a predetermined criterion accounting for at least a quota for each ad and a constraint for each cluster;" is anticipated by Ballard, col. 9, lines 39-45, where it recites:

> For advertisement distribution based on demographic data, the message content manager sends a request to the ASP computer to **send** an advertisement which **conforms** to a included set of demographic parameters. Such information is sent to the ASP computer 52. The ASP computer 52 then selects **one or more advertisements** that **conform** to the demographic data and sends the advertisements to the end user via modem, fax and messenger service (e.g., postal service). In another embodiment both affinity data and demographic data are sent.

Further, claim 1's "... accounting for at least a quota..." is anticipated by Ballard, col. 10, lines 29-30, where it recites:

> For each advertisement displayed on the end user computer according to the methods of this invention, the ad display manager program stores an accounting entry into a log of ad display accounting data 67. The entry includes an identification code for the advertisement, a time and date stamp and a time duration during which the advertisement was shown. In some embodiments, the entry also includes a destination web page of where the end user hyper-linked to after viewing the advertisement. The ad display accounting data 67 is sent to the ASP computer 52 periodically or aperiodically. Such accounting data 67 enables the advertising service provider to provide information to the participating advertisers concerning their advertisements. Such information also may be used for determining the value of the advertisement bandwidth provided by the ASP 52 and for determining how much to charge participating advertisers.

Claim 1's "selecting an ad for a current cluster from ads allocated to the current cluster; and," is anticipated by Ballard, col. 10, lines 6-7, where it recites:

> Once the ASP computer 52 makes the selections, the advertisements or identifications (e.g., web page address) of the selected advertisements are sent to the end user computer along with the playback criteria. The end user computer 14 stores the advertisements or identifications and the playback criteria. A playback manager program determines when to display an advertisement on the end user computer. For example, ads may be displayed while the end user is off-line and the computer is idle, or while the computer is loading a program.

Claim 1's "effecting the ad." is anticipated by Ballard, col. 10, lines 8, where it recites:

> Once the ASP computer 52 makes the selections, the advertisements or identifications (e.g., web page address) of the selected advertisements are sent to the end user computer along with the playback criteria. The end user computer 14 stores the advertisements or identifications and the playback criteria. A playback manager program determines when to display an advertisement on the end user computer. For example, ads may be displayed while the end user is off-line and the computer is idle, or while the computer is loading a program.

Conclusion

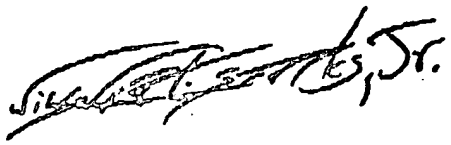
THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Wilbert L. Starks, Jr. whose telephone number is (571) 272-3691.

Alternatively, inquiries may be directed to the following:

S. P. E. David Vincent	**(571) 272-3080**
Official (FAX)	**(571) 273-8300**



Wilbert L. Starks, Jr.
Primary Examiner
Art Unit 2129

WLS

16 APR 2007